

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Original) An imaging apparatus having a correction circuit for correcting white balance according to the type of illumination light source, said imaging apparatus comprising:

an image sensor having plural red pixels to convert red light photoelectrically, plural green pixels to convert green light photoelectrically, and plural blue pixels to convert blue light photoelectrically, said red, green and blue pixels being arranged in a predetermined pattern;

each of said red, green, and blue pixels having a main pixel and a sub pixel, spectral sensitivity of said main and sub pixels being different from each other; and

a determiner for determining the type of said illumination light source by comparing a first signal being read from said main pixel with a second signal being read from said sub pixel

2. (Currently Amended) ~~An~~ The imaging apparatus as claimed in claim 1, wherein said determiner compares a first addition signal with a second addition signal of each color, said first addition signal is the sum of said first signal read from each of said main pixels of the same color, and said second addition signal is the sum of said second signal read from each of said sub pixels of the same color.

3. (Currently Amended) ~~An~~ The imaging apparatus as claimed in claim 2, wherein said determiner performs said comparison for each color, and determines said illumination light source as a different type of light source when at least one ratio of each color is not a predetermined value determined for each color.

4. (Currently Amended) ~~An~~ The imaging apparatus as claimed in claim 3, wherein said determiner determines the kind of said different type of light source according to difference between said first addition signal and a value, which is calculated by multiplying a coefficient to said second addition signal of the color used for discrimination of said different type of light source.

5. (Currently Amended) ~~An~~ The imaging apparatus as claimed in claim 1, wherein a light receiving area of each of said main pixel is larger than that of each of said sub pixel.

6. (Currently Amended) ~~An~~ The imaging apparatus as claimed in claim 5, wherein said imaging apparatus is a digital camera.

7. (Currently Amended) ~~An~~ The imaging apparatus as claimed in claim 6, wherein said red, green and blue pixels are arranged in a honeycomb manner.

8. (Currently Amended) ~~An~~ The imaging apparatus as claimed in claim 5, wherein a sensitivity wave-length range of said sub pixel is smaller than that of said main pixel.

9. (Currently Amended) ~~An~~ The imaging apparatus as claimed in claim 8, wherein said main pixel includes a color filter and a main photosensitive portion; and

wherein each of said sub pixel includes said color filter common to the color filter of said main pixel, and a sub photosensitive portion.

10. (Currently Amended) ~~An~~ The imaging apparatus as claimed in claim 9, wherein said main and sub photosensitive portions are respectively different in thickness in an optical axis direction, in order to differentiate each of said spectral sensitivity.

11. (Currently Amended) ~~An~~ The imaging apparatus as claimed in claim 9, wherein said sub pixel has a sub filter connected to said color filter in order to differentiate each of said spectral sensitivity.

12. (Currently Amended) ~~An~~ The imaging apparatus as claimed in claim 9, wherein the thickness of said color filter in the area facing said main photosensitive portion and the thickness of said color filter in the area facing said sub photosensitive portion are different in order to differentiate each of said spectral sensitivity.